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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,240	07/22/2003	Opher D. Kahn	Intel 2207/670602	8612

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EXAMINER	
HUISMAN, DAVID J	
ART UNIT	**PAPER NUMBER**
2183	

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/625,240	KAHN ET AL.	
	Examiner	Art Unit	
	David J. Huisman	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 July 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/7/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 23-41 have been examined.

Papers Submitted

2. It is hereby acknowledged that the following papers have been received and placed of record in the file: Preliminary Amendment as filed on July 22, 2003, and IDS as received on March 7, 2005.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The applicant's abstract is not long or detailed enough and does not give an adequate summary of the invention. Also, the existing abstract contains minor grammatical errors. Specifically, the first sentence is a fragment. Correction is required.

4. The disclosure is objected to because of the following informalities: On page 4, line 14, please replace the number "240" with --230--. Also, on line 14, please replace the word "an" with the word --a--. On page 4, line 16, please replace the number "140" with --240--. On page 4, line 25, please correct the examples within the parenthesis, i.e. "a bit of scale field 246, the two bits of scale field 246." It is unnecessary to state both examples. On page 5, line 17, please

correct the phrase "can used" to --can be used--. On page 8, line 1, please change the number "150" to --350--. On page 12, line 12, and page 13, line 3, please rephrase "because but no scale factor...". Also, on page 12, line 14, please change the number "630" to --610--. Finally, please replace all occurrences of "ModR/M field" to --mod field--

Appropriate correction is required.

Drawings

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Due to the required correction on page 12, line 14 (from 630 to 610), reference number "630" is not listed within the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claim 23 is objected to for the following reasons:

- In line 5, replace "an bus" with --a bus--.
- The limitation "the internal bus" in recited in line 7. There is insufficient antecedent basis for this limitation in the claim because applicant previously claims a bus but never designates it as being an internal bus.

- It is asked that applicant format the claim so that it is more clear that the decoding logic performs each of the determining steps and the decoding of an expanded logical register file. For instance, maybe each of those method steps could be condensed into a single paragraph and separated by commas.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 36-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed towards non-statutory subject matter. More specifically, claim 36 is directed towards instructions stored on a storage medium, which may include a piece of paper. Code on paper, by itself, is simply an abstract idea that has no practical application. Please modify "storage medium" to be a --computer-readable storage medium--.

9. Claims 36-39 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. A claim that does not produce a physical transformation must provide a practical application that produces a useful, concrete, and tangible final result. In claim 36, applicant performs a number of determining steps and then a decoding step. It is noted that the decoding step is not based on the determining steps and consequently the decoding step does not have to be the final step of the claim (it could occur before the determining steps). If this is the case, a determining step will be the final step in the claim and said determining step does not produce a useful, concrete, and tangible result. That is, determining by itself has no practical application. Only when the result of the determination is used in a practical way is a useful,

concrete, and tangible result obtained. Therefore, the examiner recommends amending the decoding step of the claim to include language which makes it clear that the decoding is based on determining that the mod field, r/m field, and index field each hold the corresponding predetermined value. In addition, claims 37-39 are non-statutory for the same reasons. They do not remedy the problems of parent claims 37.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 23-35 and 36-41 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 and 17-22, respectively, of U.S. Patent No. 6,625,724 (herein referred to as '724). Although the conflicting claims are not identical, they are not patentably distinct from each other because:

a) applicant has changed each occurrence of the phrase "determining that" (in the '724 claims) to "determining whether" in each of claims 23, 29, 36, and 40 of the instant application. "Determining whether a value ix X" essentially covers checking to see if the value is X or if the value is not X. Or, this can be expressed as determining that the value is X or determining that the value is not X. In '274, the claims determine that the value is X but do not explicitly teach determining that the value is not X. However, determining implies that a decision needs to be made, which in turn implies the existence of alternatives. Clearly, in '724, the mod, r/m, and index fields can hold values other than those claimed (i.e., alternatives). Consequently, when an instruction with fields having the non-claimed values is encountered, it would have been obvious to one of ordinary skill in the art to have '724 determine that the values in the fields are values other than those claimed (i.e. not X). Otherwise, if the system always just automatically determined that the field values were those claimed (i.e. X), then the other formats could not exist.

b) Claim 23 also adds additional elements that are not claimed in claim 1 of '724 such as "a memory to store IA-32 instructions," "a bus coupled to the memory," and that the decoding logic is "coupled to the expanded logical register set and the memory via the bus." However, Official Notice is taken that these types of components and connections are well known and accepted in the art. Specifically, memory for storing instructions is useful in storing instructions that aren't needed at the current time (in large programs, for instance). The processor can only operate on so many instructions at a time, and the rest must be stored in memory, unless a user were to feed the instructions to the processor externally, which would be inefficient. Furthermore, there must be a bus coupled to memory so that an instruction may be transferred to/from that memory. If

the bus did not exists, there would be no way to send or retrieve an instruction to/from memory. Finally, decode logic must receive the instruction from the memory via the bus so that operands specified by the instruction may be retrieved from the register set. Consequently, the decode logic must also be coupled to the register set. As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify '724's claim 23 to include the aforementioned components and connections.

c) Another difference is that claim 23 is directed towards a system while claim 1 of '724 claims a system. However, a processor is a type of system.

d) Claim 36 of the instant invention and claim 17 of '724 are comparable but claim 36 is directed towards a set of instructions residing in a storage medium, said set of instructions capable of being executed by a storage controller to implement a method for processing data, whereas claim 17 is directed towards a method to access an expanded logical register set of a processor. Or, in more general terms, claim 17 is directed towards a method and claim 36 is directed towards a method on a medium. A person of ordinary skill in the art would have recognized the advantages of putting the method of claim 17 on a disk. These advantages include the ability to sell the product and also to gain mobility. The storage medium may be brought from computer to computer to execute. As a result, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify '724's claim 17 such that the method is implemented on a medium as a set of instructions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Huisman whose telephone number is (571) 272-4168. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (571) 272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJH
David J. Huisman
March 3, 2006

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